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FROM:

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SUBJECT: Proximity Protection for Remote Control Continuous Mining Machines

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#### Who needs this information?

Operators of underground coal or metal and nonmetal mines, independent contractors, miner's representatives, Mine Safety and Health Administration (MSHA) enforcement personnel, state mining agencies, mine equipment manufacturers, and other interested parties need this information.

## What is the purpose of this Program Information Bulletin?

This Program Information Bulletin (PIB) informs the mining industry of the development and availability of a proximity protection system that can be installed on remote control continuous mining machines.

## What is the capability of a proximity protection system?

A proximity protection system, as installed on a remote control continuous mining machine, is capable of providing warning signals and machine shutdown commands when a person enters the hazardous area (red zone) around the machine while operating, or working in the vicinity of the machine.

## What is the background for this PIB?

Since 1984, there has been 29 fatal crushing or pinning accidents associated with the operation of remote control continuous mining machines. The majority of these accidents occurred while the machine was being trammed from one location to another. In most of these accidents, the fact that the miner operator was assigned multiple tasks (e.g. cable handling) in addition to operating the machine was considered a contributing factor to the accident.

To reduce or eliminate these types of accidents, MSHA entered into partnerships with developers of proximity protection systems, mining equipment manufacturers and mine operators to engineer systems having the capability of causing machine shutdown prior to a remote control continuous mining machine contacting an individual.

In September 2004, Geosteering Mining Services, LLC, Huntsville, Alabama, along with its distributor, Gamma Services International, Inc., began development of TramGuard, its version of a proximity protection system. Their system recently completed a successful field trial at an underground coal mine. During this field test, the system provided consistent warning and shutdown commands and effectively prevented an operator wearing a personal alarm device from entering the [hazardous area] around the machine. The system components have been approved by MSHA as complying with the applicable provisions of Title 30 Code of Federal Regulations (30 CFR) Part 18.

Who do I contact to get more information regarding a proximity protection system? The contact information for the system that is currently available for incorporation on MSHA approved machines is:

Dwayne Towery, Gamma Services International, Inc., Clay, KY, (270) 635-0482, email: <a href="mailto:dwayne@gsimining.com">dwayne@gsimining.com</a>.

As future systems become available, contact information will be included on MSHA's proximity protection website at the following link: <a href="http://www.msha.gov/Accident\_Prevention/NewTechnologies/Initiatives/proximity">http://www.msha.gov/Accident\_Prevention/NewTechnologies/Initiatives/proximity protection/proximityprotection.asp.</a>

## What is MSHA's authority for this PIB?

The Federal Mine Safety and Health Act of 1977; 30 CFR 18.20(b)

#### Is this PIB on the Internet?

This information bulletin may be viewed on the World Wide Web by accessing the MSHA home page (http:www.msha.gov) and choosing "Compliance Info" and "Program Information Bulletins."

# Who is the MSHA contact person for this PIB?

David C. Chirdon, (304) 547-2026

Technical Support

E-mail: <a href="mailto:chirdon.david@dol.gov">chirdon.david@dol.gov</a>

#### Who will receive this PIB?

MSHA Program Policy Manual Holders Underground Mine Operators Mine Equipment Manufacturers Miners' Representatives Special Interest Groups